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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,464	06/27/2003	Yasunao Katayama	JP920020119US1	9371
48813	7590	10/06/2006	EXAMINER	
LAW OFFICE OF IDO TUCHMAN (YOR)			ALPHONSE, FRITZ	
82-70 BEVERLY ROAD			ART UNIT	
KEW GARDENS, NY 11415			PAPER NUMBER	
			2133	
DATE MAILED: 10/06/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/608,464

Applicant(s)

KATAYAMA ET AL.

Examiner

Fritz Alphonse

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-10 and 12-24 is/are rejected.
- 7) ☒ Claim(s) 3,4 and 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 1,3.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Specification*

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 5-9, 15, 18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hattori (U.S. Pat. No. 6,453,439) in view of Matsukuma (U.S. Pat. No. 5,905,741).

As to claims 1, 18 and 21, Hattori (fig. 4) discloses an encoding device for adding an error correction code parity to an input data sequence, including a first code encoding unit for adding a binary error correction code parity to each of a plurality of first data blocks into which the input data sequence is divided (col. 10, lines 10-31); and a second code encoding unit for adding a symbol error correction code for correcting an error by a symbol unit of a predetermined length to each of a plurality of second data blocks into which the input data

sequence is divided in a form different from that of the plurality of first data blocks (col. 10, lines 32-57).

Hattori differs from claim 1 in that he does not specifically disclose the number of bit errors to be corrected per total number of bits of the first data block to which the binary error correction code parity is added is larger than the number of bit errors to be corrected per total number of bits of the second data block to which the symbol error correction code parity is added.

However, in the same field of endeavor, Matsukuma discloses a data error correcting apparatus for digital signal frames, wherein the number of bits of a first data block to which binary error correction code parity is added is larger than the number of bit errors to be corrected per total number of bits of the second data block to which the symbol error correction code parity is added (col. 5 lines 50 through col. 6 line 6).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine Hattori's device with data error correcting apparatus, as disclosed by Matsukuma. Doing so would provide an error correcting method and an error correcting apparatus for receiving digital information in mobile communication, which can shorten the time required for error correction processing.

As to claims 2, 5-6, Hattori discloses an encoding device, wherein the first code encoding unit adds, as the binary error correction code parity, a code having an error detection function for a larger number of bit errors than the number of bit errors to be corrected by the binary error correction code parity (col. 9, lines 55-65; col. 10, lines 10-31).

As to claims 7-9, Hattori (fig. 4) discloses a device, wherein the first code encoding unit adds, as the binary error code parity, a code having a burst error detection function to the first data block; and wherein the binary error correction code parity is capable of double-bit error correction (col. 10, lines 10-31).

As to claim 15, method claim 15 corresponds to apparatus claim 1; therefore, it is analyzed as previously discussed in claim 1 above.

4. Claims 10, 12 -14, 16-17, 19-20, 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamai (U.S. Pat. No. 5,856,890) in view of Matsukuma (U.S. Pat. No. 5,905,741).

As to claims 10 and 12, 19, 20, 22-24, Hamai (fig. 5) discloses decoding device for correcting errors of an encoded data sequence to which an error correction code parity is added, comprising: a storage unit for storing the encoded data sequence (col. 7, lines 49-57); a first error correction unit for correcting an error of each of a plurality of first data blocks, into which the encoded data sequence is divided, by minimum distance decoding of a binary error correction code (col. 6 lines 35- 57); and a second error correction unit for correcting an error of each of a plurality of second data blocks, into which the encoded data sequence is divided in a form different from that of the plurality of first data blocks, by minimum distance decoding of a symbol error correction code for error correction by a symbol unit of a predetermined length (col. 6, lines 58 through col. 7 lines 19).

Hattori does not explicitly disclose a number of bit errors to be corrected by the binary error correction code is larger than the number of bit errors to be corrected by the symbol error

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correction code. However, the limitations are obvious and very well known in the art, as evidenced by Matsukuma.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to improve upon the data error correcting apparatus, as disclosed by Matsukuma. Doing so would provide an error correcting method and an error correcting apparatus for receiving digital information in mobile communication, which can shorten the time required for error correction processing.

As to claims 13-14, the claims have substantially the limitations of claims 10 and 12; therefore, they are analyzed as previously discussed in claims 10 and 12 above.

As to claims 16-17, method claims 16-17 correspond to apparatus claim 10; therefore, they are analyzed as previously discussed in claim 10 above.

#### ***Allowable Subject Matter***

5. Claims 3-4 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks, Washington, D.C. 20231

**or faxed to:** (703) 872-9306 for all formal communications.

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Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Fourth Floor (Receptionist).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fritz Alphonse, whose telephone number is (571) 272-3813. The examiner can normally be reached on M-F, 8:30-6:00, Alt. Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert De Cady, can be reached at (571) 272-3819.

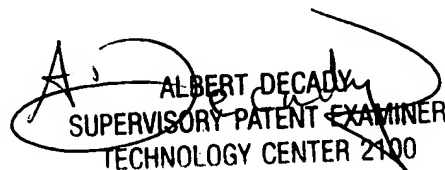
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-3824.

Information regarding the status of an application may also be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Fritz Alphonse

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September 29, 2006

  
ALBERT DECADY  
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